



**A**s part of the U.S. Integrated Ocean Observing System (IOOS®), the **Pacific Islands Ocean Observing System** (PacIOOS) is a partnership of data providers and users working together to enhance ocean observations and develop, disseminate, evaluate and apply ocean data and information products designed to address the needs of stakeholders who call the Pacific Islands home. This integrated observing and information system provides information to address:

**Coastal Hazards Resilience:** Providing predictions of high water level and inundation events in coastal areas, developing maps of coastline change and identifying areas of vulnerability, and providing beach condition forecasts to users and lifeguards in an effort to promote public safety and community resilience.

**Maritime Safety and Security:** Serving timely, reliable, real-time information on harbor conditions, coastal and open ocean currents, waves, and weather to improve search-and-rescue operations, spill response, optimize shipping routes, and develop better severe weather and event predictions.

**Coastal Water Quality:** Supplying real-time observations of biological, chemical, and physical water parameters to improve our understanding of ocean acidification, more effectively protect healthy coastal marine ecosystems, and enhance the understanding of and response to marine events that impact human health.

**Ocean Planning and Management:** Integrating information for effective coastal and marine spatial planning (CMSP), measuring and modeling parameters necessary for the

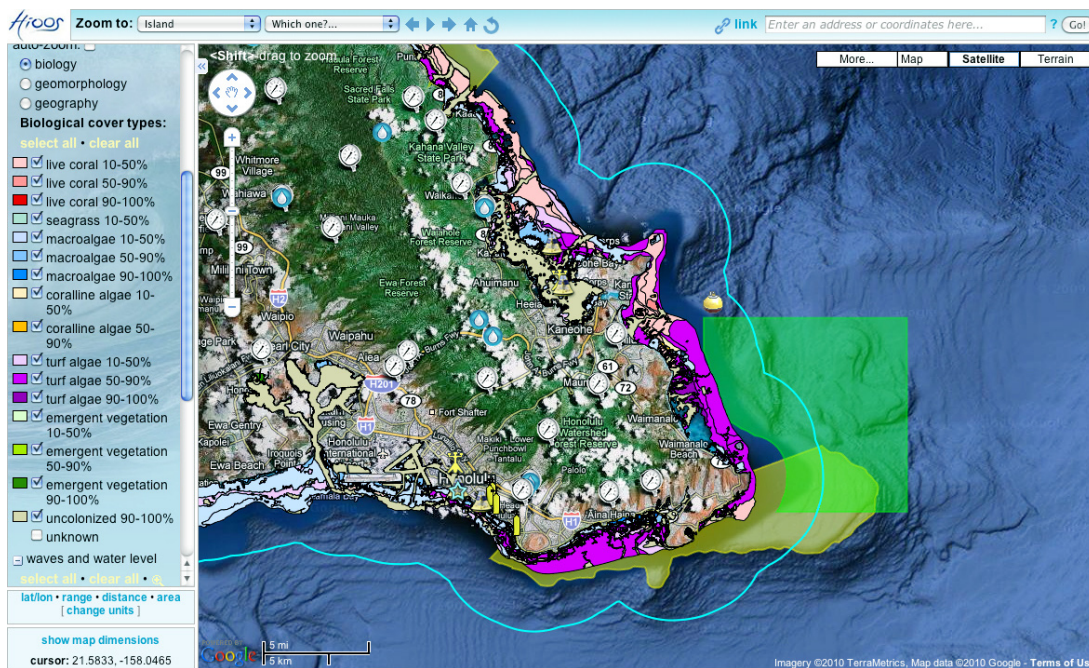
development of climate change mitigation and adaptation plans, and collecting and serving necessary information for renewable energy development.

**Education and Outreach:** Working to promote the understanding and stewardship of the Hawaiian and insular Pacific's coastal waters and build capacity for the continued expansion of ocean observations and informational products.

PacIOOS is one of eleven Regional Associations within the Integrated Ocean Observing System (IOOS®). Federally authorized in 2009, IOOS is a federal program administered by the National Oceanic and Atmospheric Administration (NOAA).



**A key component of the water quality monitoring effort is a network of offshore buoys that measure variables related to ocean water quality, climate, and atmospheric conditions. This buoy, deployed off O'ahu, Hawai'i, is a part of the global CO<sub>2</sub> monitoring array.**



Data management and visualization is a core component of the PacIOOS efforts in the region. Development of a data visualization interface is ongoing in both Hawaii and the insular Pacific. The viewer will allow for users to interact with spatial and point-source data through a map-based web interface.

## Present System

Initial PacIOOS observing efforts have focused on the development of an end-to-end observational system confined to the island of O'ahu, Hawai'i. This focused pilot-project is exploring the operability of various observational systems in an island setting to help determine the ideal design for a full PacIOOS observational network.

Data system development, modeling, education and outreach, and stakeholder engagement through a collaborative governance framework are focused not only on the Hawaiian Islands but each of the PacIOOS jurisdictions through the Pacific. Targeted deployment of instrumentation to address local stakeholder needs has begun in the western and southern Pacific jurisdictions with deployments to expand under future funding cooperative agreements.

**For more information,** contact:



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Or visit [www.pacioos.org](http://www.pacioos.org). For information on the Hawai'i-based pilot program please visit [www.hioos.org](http://www.hioos.org).



**The Pacific Islands region covers a vast area and consists of the US state, territories, and possessions in the central and south Pacific as well as the three independent nations in free association with the US.**

